

IN THE CLAIMS:

In line 1, delete Claims and insert:

C L A I M S

What is claimed is:

Please cancel claims 1-20 and insert the following new claims 21-40:

1. - 20. (Canceled)

21. (New) A safety method for aircraft comprising the steps of:

marking prohibited airspaces, which controlled aircraft may not enter, on a digitally stored image of the airspace; and

when a controlled aircraft approaches a prohibited airspace, automatically steering the aircraft on to an alternative route which is situated outside the prohibited airspace by means of an automatic control device on board the aircraft.

22. (New) A safety method according to claim 21, wherein the height of the prohibited airspace is greater than the height which can be reached by the controlled aircraft.

23. (New) A safety method according to claim 21, further comprising the step of activating the automatic control device to steer the aircraft only after the input of a command, and permitting deactivation of the automatic control device only by a secure method which prevents unauthorized deactivation.

24. (New) A safety method according to claim 21, wherein the automatic control device can only be deactivated by means of a device situated outside the aircraft.

25. (New) A safety method according to claim 21, wherein the automatic control device can only be deactivated when the aircraft is on the ground.

26. (New) A safety method according to claim 21, wherein the automatic control device includes means for automatically landing the aircraft.

27. (New) A safety method according to claim 26, wherein the location of the automatic landing is predetermined by means of a device situated outside the aircraft.

28. (New) A safety method according to claim 21, further comprising the step of taking over control of the aircraft on the alternative route by means of a device situated outside the aircraft.

29. (New) A safety method according to claim 23, further comprising the step of sending a message to a device for air traffic control when the automatic control device is activated.

30. (New) A safety method according to claim 21, further comprising the step of selecting an alternative route when

the aircraft approaches a moveable object, thereby to avoid the movable object.

31. (New) A safety method according to claim 21, further comprising the step of automatically steering the aircraft to an alternative route when it approaches other objects, including other aircraft.

32. (New) A safety method according to claim 21, further comprising the steps of:

- dividing the airspace into predetermined volume elements;
- calculating probabilities in which the aircraft will be situated in predetermined volume elements at a plurality of selected points in time (residence probabilities);
- calculating probabilities of the presence of the aircraft in each volume element (collision probabilities) of the predetermined volume elements for the selected points in time from the residence probabilities of the aircraft and from residence

probabilities of the volume elements of the prohibited airspace, the latter of which are set approximately equal to one; and

- calculating an alternative route if the collision probability exceeds a predetermined value for at least one volume element.

33. (New) A safety method according to claim 32, wherein a plurality of alternative routes, with a deviation which increases from alternative route to alternative route, are initially calculated according to recognized or established alternative rules, and wherein the calculated alternative route with the smallest deviation, which results in a probability of entry into the prohibited airspace that is less than a predetermined threshold value is selected and is converted into a control command for said automatic control device.

34. (New) A safety method according to claim 33, wherein, when a limiting deviation is reached without the probability of entry into the prohibited airspace being correspondingly

reduced, alternative routes in another direction are calculated.

35. (New) A safety method according to claim 32, wherein residence probabilities of other objects are additionally taken into consideration for the calculation of the alternative route.

36. (New) A safety method according to claim 32, wherein, for volume elements which are situated in an edge region around the prohibited airspace, the residence probabilities are set to a lesser value than that of the prohibited airspace.

37. (New) A safety method according to claim 21, further comprising the step of emitting a warning signal for the pilot when the aircraft approaches a prohibited airspace.

38. (New) A safety method according to claim 21, further comprising the step of emitting a warning signal for the

pilot when the automatic control device takes over the automatic control of the aircraft.

39. (New) A safety method according to claim 21, further comprising the step of displaying prohibited airspaces, and displaying the alternative routes which are calculated, on a display device, preferably a navigation display device.

40. (New) A safety method according to claim 21, further comprising the step of displaying the airspace, the position of the aircraft in the airspace, and the alternative route, if any, on a display device.